

ENVIRONMENTAL ASSESSMENT

EA No. ID-220-2007-EA-3574

Sawtooth Stone Supply / Sawtooth Number 4

Serial/Project No.: IDI-35886 Field Office: Burley Preparation Date: May 2008



BUREAU OF LAND MANAGEMENT

Burley Field Office

15 East 200 South
Burley, Idaho 83318

Project Applicant:

Sawtooth Stone Supply

P.O. Box 49
Oakley, Idaho 83346

Draft Prepared by:

EarthTouch, Inc.

3135 North Fairfield Road, Suite D
Layton, Utah 84041

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Purpose and Need	1
1.2	Conformance with Applicable Land Use Plans	1
1.3	Relationship to Statutes, Regulations or Other Plans	2
1.4	Potentially Impacted Resources	2
2.0	PROPOSED ACTION AND ALTERNATIVES	3
2.1	Proposed Action	3
2.1.1	Overview and Location of Proposed Action	3
2.1.2	Schedule of Proposed Action Activities	3
2.1.3	Access Roads	3
2.1.4	Right of Way	4
2.1.5	Project Area Preparation	4
2.1.6	Water and Other Lubricants	5
2.1.7	Safety Consideration	5
2.1.8	Plan of Operation Mitigation	5
2.2	Description of Alternatives	6
2.2.1	No-Action Alternative	6
3.0	AFFECTED ENVIRONMENT	7
3.1	Critical Elements of the Human Environment	7
3.2	Existing Conditions	8
3.2.1	Air Quality	9
3.2.2	Cultural Resources	9
3.2.3	Environmental Justice	9
3.2.4	Invasive Non-Native Species	9
3.2.5	Migratory Birds	9
3.2.6	Threatened, Endangered, and Sensitive Animals	9
3.2.7	Wastes, Hazardous or Solid	10
3.2.8	Wetlands and Riparian Zones (including uplands)	10
3.2.9	Availability of Access / Need to Reserve Access	11
3.2.10	Wildlife	11
3.2.11	Existing and Potential Land Use	11
3.2.12	Vegetation Types, Communities; Vegetative Permits and Sales; Rangeland Resources	11
3.2.13	Soils	11
3.2.14	Economic and Social Values	12
3.2.15	Mineral Resources	12
4.0	ENVIRONMENTAL CONSEQUENCES	12
4.1	Air Quality	12
4.2	Cultural Resources	13
4.3	Environmental Justice	14

4.4	Invasive Non-Native Species	14
4.5	Migratory Birds	15
4.6	Threatened, Endangered, and Sensitive Animals	16
4.7	Wastes, Hazardous or Solid	17
4.8	Wetlands and Riparian Zones (including uplands)	18
4.9	Availability of Access / Need to Reserve Access	19
4.10	Wildlife	19
4.11	Existing and Potential Land Use	19
4.12	Vegetation Types, Communities; Vegetative Permits and Sales; Rangeland Resources	20
4.13	Soils	20
4.14	Economic and Social Values	20
4.15	Mineral Resources	21
5.0	LIST OF PREPARERS	22

TABLES

Table 1	Critical Elements of the Human Environment	8
---------	--	---

FIGURES

Figure 1	Project Area Location (Street Map)
Figure 2	Project Area Aerial View with Access Roads
Figure 3	Topographic Map

APPENDICES

Appendix A	Project Area Photographs
Appendix B	State Historic Preservation Office (SHPO) Concurrence

1.0 INTRODUCTION

The Bureau of Land Management (BLM) Burley Idaho Field Office is considering approval of a Mining Plan submitted by Sawtooth Stone Supply (Sawtooth) to quarry “Oakley Stone,” a micaceous quartzite that is used for decorative surfaces and exterior fascia on buildings and other structures by the construction industry (Proposed Action). Uses for Oakley Stone include poolside non-slip surfaces, footpaths, exterior building veneer, and other exterior applications. The proposed quarrying project would be located on public lands within Cassia County, Idaho. Sawtooth is proposing to quarry, split, and transport Oakley Stone from an open-pit quarry located within a 60-acre area on Middle Mountain near the town of Oakley (Project Area). External scoping and/or public involvement have not been completed as part of the process in the preparation of this Environmental Assessment (EA).

The Project Area is generally situated in southern Idaho in unincorporated Cassia County roughly five miles south of Oakley and 11 miles north of the Utah-Idaho border (Figure 1). Access to and from the proposed open-pit quarry is achieved through privately held lands (Figure 2). Sawtooth has established agreements for access with private land owners. The BLM-Burley Field Office administers the public lands in which quarrying operations take place.

Oakley Stone is a mineral resource in which rock qualities; such as foliation, layering, coloring, and strength; give the stone an intrinsic value as a construction material. Adding to its value as a construction material is the ability to split Oakley Stone in a relatively controlled manner. A common variety determination of Oakley Stone was performed in 2002 and was found to be locatable within the project area. Small amounts of the stone were initially quarried under the Notice of Intent to address economic considerations and to provide information for the common variety determination. Now that Oakley Stone has been determined to be locatable within the project area, and a commercial demand exists for this mineral resource, a Plan of Operations has been submitted to quarry the stone commercially.

1.1 Purpose and Need

In recent years the commercial and residential building industry has incorporated more and more natural materials in construction. The use of slates, marbles, granites, flagstones, and other building stones and quarried materials is growing nationwide and worldwide. The need for the Proposed Action arises from the national and international demand by the construction industry for Oakley Stone. As a result of this demand, the BLM-Burley Field Office has received an application to quarry Oakley Stone on BLM lands. Middle Mountain is one of three known areas where Oakley Stone occurs. Oakley Stone occurs near the surface of Middle Mountain in areas accessible for quarrying. Middle Mountain is also accessible via existing roads. While there are existing quarries on Middle Mountain that are presently removing Oakley Stone, there is a commercial demand in the marketplace for additional sources. The purpose of the Proposed Action is to facilitate quarrying of Oakley Stone within the project area to meet the current and anticipated future demands of the marketplace while minimizing direct and cumulative impacts to the environment.

1.2 Conformance with Applicable Land Use Plans

The Proposed Action is consistent with the Geology, Energy, and Minerals Management guidelines of the Cassia Resource Management Plan (RMP) approved January 24, 1985. The RMP states that

“The BLM will manage geological, energy and minerals resources on public lands. Geological resources will be managed so that significant scientific, recreational and educational values will

be maintained or enhanced. Generally, the public lands are available for exploration and development, subject to applicable regulations and Federal and State law.”

The Proposed Action is also consistent with the Resource Management Objectives of the Management Area 4-Middle Mountain Area Plan, specifically with respect to:

“Facilitate the orderly development of the building (Oakley) stone resource.”

Furthermore, the Proposed Action is consistent with the Required Actions of the Management Area 4-Middle Mountain Area Plan that the Middle Mountain area is, *“open to mining, mineral leasing, and sale”* and limiting wheeled vehicles to existing roads and trails.

The Proposed Action is consistent with Federal, State and local laws.

1.3 Relationship to Statutes, Regulations, or Other Plans

This Environmental Assessment (EA) has been prepared for compliance with the National Environmental Policy Act of 1969 (NEPA). The EA analyzes the potential environmental effects associated with proposed quarrying activities detailed in a Mining Plan of Operations submitted to the BLM. The EA will assist the BLM in determining whether an Environmental Impact Statement (EIS) would need to be prepared or if a Finding of No Significant Impact (FONSI) is appropriate.

The project area is within the boundaries of the Burley Field Office of the BLM. The project area is not within or near to Research Natural Areas (RNAs) or Areas of Critical Environmental Concern (ACECs) identified in the RMP. This document has been prepared in order to ensure that the Proposed Action would occur in a manner consistent with the RMP.

1.4 Potentially Impacted Resources

In accordance with NEPA, BLM staff evaluated the list of “Critical Elements of the Human Environment,” along with “Other Important Elements of the Human Environment” at a meeting in September 2007. The list of Critical and Other Important Elements are contained in Table 1 in Section 3.1 of this EA. All elements were fully reviewed and evaluated at the meeting and based on the initial evaluation by BLM staff a two step action plan was developed for the preparation of the EA as follows:

- Step 1 – based on initial project information a determination was made that certain elements are not present within or adjacent to the proposed project area or may be present but would not be affected by the Proposed Action. These elements will not receive further consideration (see Table 1).
- Step 2 – based on initial project information a determination was made that certain elements are present and may be affected by the Proposed Action and require further evaluation. These elements are:
 1. Air Quality.
 2. Cultural Resources.
 3. Environmental Justice.
 4. Invasive, Non-native Species.
 5. Migratory Birds.
 6. Threatened / Endangered Animals, Sensitive Animals.

7. Wastes, Hazardous or Solid.
8. Wetlands / Riparian Zone (including uplands).
9. Availability of Access / Need to Reserve Access.
10. Wildlife.
11. Existing and Potential Land Uses.
12. Vegetation Types, Communities; Vegetative Permits and Sales, Rangeland Resources.
13. Soils.
14. Economic and Social Values.
15. Mineral Resources.

2.0 PROPOSED ACTION AND ALTERNATIVES

The BLM-Burley Field Office is considering approval of a mining plan for the Middle Mountain Claim No. 1 submitted by Sawtooth related to quarrying Oakley Stone in the Middle Mountain area roughly 5 miles south of the town of Oakley, Idaho. A decision to approve or deny the Plan of Operations would be made by the BLM-Burley Field Office Manager. A description of the Proposed Action and No Action alternatives are described in this section.

2.1 *Proposed Action*

The Proposed Action would involve extracting roughly 3,000 tons of Oakley Stone on an annual basis for up to 10 years, then expanded to meet market conditions with up to 10,000 tons of Oakley Stone being removed annually. It is estimated that about 50 percent of the quarried Oakley Stone would be commercially available for sale and that the quarry could operate for 40 to 50 years.

2.1.1 *Overview and Location of Proposed Action*

The proponent of the Proposed Action is Sawtooth located at:

P.O. Box 49
Oakley, Idaho 83346

The Proposed Action would be located in the northwest quarter (NW 1/4) of the southeast quarter (SE 1/4) and the south half (S 1/2) of the southwest quarter (SW 1/4) of the northeast quarter (NE 1/4) of Section 34, Township 14 South, Range 22 East, Boise Base Meridian (Figure 3).

2.1.2 *Schedule of Proposed Action Activities*

Sawtooth proposes to initiate activities as soon as the required project permits and approvals are obtained, most likely June 2008. In addition to obtaining the approval of the BLM-Burley Field Office for the Plan of Operations, Sawtooth would acquire applicable State and local permits and authorizations necessary to support the mining operations.

2.1.3 *Access Roads*

Access to the project area would be achieved by traveling in an easterly direction on Warm Springs Way, a county maintained two-lane dirt road, from an intersection on Goose Creek Road located roughly 3.5 miles south of Oakley. After roughly one mile of easterly travel on flat terrain, a veer in the road leads southeasterly onto a one-lane private dirt road that climbs roughly 650 feet in elevation, while winding

and traversing across the base of Middle Mountain a distance of roughly ¾-mile before arriving at the project area.

Inside the Project Area, a new access road is proposed to start at the west boundary of BLM lands in Section 34. Initially the proposed access road would be 1,500 feet long and would proceed through the proposed quarry and plant growth materials storage, exit these areas, reenter the plant growth materials storage at an uphill position, then terminate within the stone storage/worker's camp. The plant growth materials storage area would be used to store topsoil and overburden stockpiles. During operations the roadway would be shifted as needed to maximize access to stone in the quarry, which can be quarried. After the quarry and stone storage/worker's camp have been developed, the remainder of the proposed road outside of these areas would be approximately 920 feet. The approximately 920 feet of road would cover about 0.3 acres (total of useable road plus cut/fill slope). The remainder of the road is included within the acreage on the quarry and stone storage/worker's camp.

All access roads would be improved and maintained in accordance with established standards. Drainage systems would be installed as necessary to protect property and ensure adequate road drainage (such as drainage dips, water bars, ditches, road crossings and culverts) in accordance with the established standards.

2.1.4 Right of Way

Sawtooth has entered into a "Mining Lease Agreement" with individuals (Grantee) who had previously secured an access easement with the underlying property owner (Grantor). No additional right-of-way is required for either roads or electrical transmission lines. Sawtooth has acquired all appropriate easements in order to access the Project Area.

2.1.5 Project Area Preparation

The quarrying operation would use heavy equipment such as an excavator, a loader with forklift, one or more flat bed 10-wheel trucks for transportation of palletized stone, pick-up trucks for transportation of quarry workers and supplies, and occasionally a Caterpillar D-8 or similar bulldozer.

Oakley Stone would be removed from the quarry face and moved to an area where it would be placed in mounds to be graded, split, stacked, and palletized for transportation off-site. Although the Project Area is defined as a 60-acre area near the base of Middle Mountain (Figure 3), the Proposed Action is not anticipated to require the entire Project Area. Quarrying operations would encompass about 3 acres the first year and then would be expanded to approximately 10.6 acres by the end of the quarry life. When fully completed, roughly 6.6 acres would be devoted to a quarry, 1.7 acres for a stone storage/workers camp area, 2.0 acres for a soil and material stockpile area, and 0.3 acres (920 feet) for access roads. Activities within stone storage/workers camp area would include:

- Storage of palletized stone until shipped off-site,
- Storage of supplies used to support quarry operations including; pallets, wire, banding, and hand tools; and
- Storage of consumables necessary for vehicle and equipment operation and maintenance including diesel fuel, lubricants, oil, hydraulic and transmission fluids, and spare parts.

No permanent buildings are planned to support quarrying operations. Mobile homes would be brought to a stone storage/workers camp area for quarry workers. Initially, two to three mobile homes would be

needed. As the number of workers increases, up to 12 mobile homes may be necessary to support operations. Drinking water would be hauled in from the town of Oakley and stored in a 3,000-gallon water tank that would be erected within the stone storage/workers camp area. Household wastes from mobile homes would be collected routinely and transported to the Oakley waste transfer station or incinerated at the project area in a manner consistent with county standards. Self-contained sanitation units would be brought to the stone storage/workers camp area and serviced on a regular basis by a commercial sanitation company. Grey water would be piped via a series of above-ground pipes to a hole in the ground where it would dissipate into the soil at the project area.

2.1.6 Water and Other Lubricants

Oil, lubricants, antifreeze, and hydraulic and transmission fluids would be delivered to the quarry in containers with volumes of 5-gallons or less. A 500-gallon aboveground storage tank (AST) for diesel fuel would be placed within the stone storage/workers camp area to fuel vehicles and equipment used in quarrying operations.

2.1.7 Safety Consideration

Geological, geotechnical, and safety considerations would dictate quarry expansion, pit slope, and pit highwall design. However, the quarry is anticipated to be expanded from the west to east in an up-slope direction. Quarrying is planned on 45-foot benches with an overall slope angle of 60 to 75 degrees. However, bench heights may be increased or decreased depending upon rock properties and geotechnical considerations. A catch bench would be established between benches as a safety measure. Typical catch bench widths would be approximately 20 feet. The depth to which the Oakley Stone may be quarried economically is not known. However, it is anticipated the formation would become harder and less amenable to splitting with increasing depth. The 10.6-acre size of the quarry and the area needed for the waste dumps within the available space would limit the overall quarry to three benches, plus an original small bench in the southwest part of the quarry. The quarry is planned as an expansion of an existing 1-acre quarry established by a previous operator.

Topsoil would be scraped from the earth's surface prior to subsurface mining. Scraped topsoil would be stockpiled in the plant growth materials storage area. Quarrying, stockpiling, splitting, and palletizing activities are anticipated to be conducted March through November each year. Up to 12 contractors would be hired to carry-out these activities. On-site contractors would be supervised by Sawtooth staff based in Oakley. Operations would be conducted typically during daylight hours, up to seven days a week.

2.1.8 Plan of Operation Mitigation

BLM-Burley Field Office approval of the Plan of Operations would incorporate the following conditions:

- A seep that emerges in the bottom of a gulley at the southern portion of the project area enhances the quality of habitat for wildlife. A 100-foot buffer around the seep would be established to reduce impacts to the seep by prohibiting loose soils or any other substance from being deposited into the seep. To ensure that water from roads and quarry operations does not drain into this seep, drainage systems (such as drainage dips, ditches, road crossings, and culverts) would be installed as necessary and would direct water away from the seep. To ensure that grey water does not enter the seep, the grey water disposal area would be located at least 700 feet from the seep.

- Quarry activities that involve disturbance to the vegetation at the Project Area would be limited to the time-frame between July 1 and February 28 as a mitigative measure to prevent impacts to BLM sensitive birds and other migratory birds that may nest and/or forage within the Project Area. In the event that vegetation-disturbing activities cannot be avoided during this time frame, a biological clearance survey would be performed to determine whether nesting BLM sensitive and/or migratory birds are present at the Project Area. If the survey identifies active bird nests that would be impacted, the proposed vegetation-disturbing activities would be postponed until the breeding and fledging season has passed.
- In the unlikely event that human remains or any previously unidentified cultural, historical, or archaeological resource or vertebrate paleontological resources are discovered during quarrying activities, Sawtooth would immediately cease all activities within 200 feet of the discovery, insure that the discovery is properly protected, and immediately notify the BLM by telephone. Work would not resume until the discovery is evaluated by the BLM and the BLM issues notification that quarrying operations can proceed.
- Land disturbance associated with the Proposed Action would create disturbance areas that could be conducive to infestation of non-native, invasive noxious weeds. The only noxious weed on the State of Idaho Department of Agriculture Noxious Weed List that was noted at the project area was Scotch thistle (*Onopordum acanthium*). A patch of Scotch thistle at the southwest portion of the project area measuring roughly 1,000 square feet was noted in a disturbed clearing that had previously been bulldozed. Noxious weeds would be treated a minimum of once per year or as often as necessary to control them. For Scotch thistle, herbicides would be applied in the summer months between the rosette and pre-bud stages. Other noxious weeds, if found would also be treated with herbicides, or as otherwise suggested by the State of Idaho Department of Agriculture. Only herbicides approved for use on public lands would be used in a manner consistent with the applicable standard operating procedures found in Appendix B of the September 29, 2007, Record of Decision (ROD) related to "Vegetation Treatments Using Herbicides on BLM Lands in the 17 Western States."
- Small volumes of oil and transmission fluids may be brought to the Project Area in 5-gallon or smaller containers. In addition, a portable 500-gallon diesel containing aboveground storage tank (AST) would be used at the Project Area to fuel vehicles. The AST would be fueled in Oakley and brought in a truck to the Project Area where it would be placed in a secondary containment structure capable of storing the volume of the full AST plus 10 percent.
- Solid waste and wastewater would be generated at the Project Area as a result of workers residing at the Project Area in mobile homes. Solid wastes would be collected and taken to the Oakley waste transfer station or incinerated at the site consistent with County standards. Self-contained sanitation units would be brought to the stone storage/workers camp area and serviced on a regular basis by a commercial sanitation company.
- Sawtooth agrees to reclaim the project area in accordance with the Mining and Reclamation Plan.

2.2 Description of Alternatives

In addition to the proposed action, this EA considers only the No Action Alternative in detail. One alternative was briefly considered but eliminated from detailed study. Oakley Stone is known to occur on the Sawtooth National Forest approximately 7 miles from the project area. However, the mining proponent does not have the claims needed to operate at the site on the Sawtooth National Forest. A

common variety mineral determination has not been completed at the site and it is not known if mining that site would be commercially feasible. Finally, there is no plan of operation proposed at that site.

2.2.1 No-Action Alternative

Under the No Action Alternative, the Plan of Operations submitted by Sawtooth would not be approved and mining operations would not take place in the project area. The No Action Alternative is used as the baseline for comparison of environmental effects.

3.0 AFFECTED ENVIRONMENT

The Project Area encompasses a roughly 60-acre, rectangular-shaped portion of land at the northwest flank of Middle Mountain near where topography transitions from Middle Mountain to the bordering flat Snake River Valley Plateau region. Elevations within the project area range from roughly 5,800 to 6,200 feet above sea level. Two gullies traverse the project area directing runoff generally in a westerly direction. The gullies converge near the western boundary of the project area. The southern gully is dry and likely only contains water during rainfall events and during times of runoff. The northern gully contains a small seep that emerges in the south-central portion of the project area, resulting in small puddles and moist soil for about 300 feet down slope before drying up. The seep emerges from beneath a large boulder in the bottom of the gulley. Three single lane dirt roads traverse the project area and several rock piles are present alongside one of these roads. Another quarry abuts the project area to the west, and it appears that the open-pit associated with this abutting quarry may have encroached up to 350 feet into the project area. It is estimated that roughly five percent (5%), or roughly three acres, of the project area is affected by pre-existing quarrying activities, which includes the existing stone quarry, existing stone piles and existing dirt roads.

The area surrounding the project area is predominantly agricultural with existing stone quarries. Irrigation water for the portion of the Snake River Valley north of the project area is provided by Goose Creek Reservoir, which is situated roughly four miles west of the project area. The project area is accessed via dirt roads that connect to the city of Oakley, located roughly five miles to the north. The project area is located at the northern portion of Middle Mountain, a more-or-less north-south trending mountain surrounded by flat valleys to the north, east, and west, and a continuing ridge-line to the south.

Cassia County encompasses a land area of 2,566 square miles and possesses a population of roughly 22,000 residents. The economy of Cassia County is driven by agriculture, mining, and manufacturing. Well known businesses in Cassia County include McCain Foods, Boise Cascade, and Wal-Mart (IDOL 2008). McCain Food was built in the 1960s and processes french fries and hash browns. Boise Cascade Corporation, based in Burley, is a manufacturer of cardboard boxes and other materials. Simplot Industries was originally based in Cassia County. Cassia County is one of the leading agricultural counties in both the state and the nation and is known for production from beef cattle, dairy cattle, sheep, potatoes, sugar beets, beans, and cereal crops. Approximately 82 percent of total economical sales in the county are from agricultural production and about 78 percent of direct or indirect employment is tied to agriculture. Cache Peak, with an elevation of 10,339 feet, is the highest peak in Cassia County. Cache Peak is located in the Albion Mountains in the Sawtooth National Forest roughly 11 miles east of the project area. Cassia County is bordered by Jerome and Minidoka Counties to the north, Twin Falls County to the west, Power and Oneida Counties to the east, and the state of Utah to the south.

Photographic documentation of the project area is included as Appendix A.

3.1 Critical Elements of the Human Environment

Critical Elements that may be affected by the Proposed Action are described in this section of the EA. Critical Elements that are not present in the project area or likely to be affected by the Proposed Action are not considered or discussed in this EA. Critical Elements and Other Important Elements of the Human Environment are listed in Table 1.

Table 1
Critical Elements of the Human Environment

The following elements of the human environment are subject to requirements specified in treaty, statute, regulation, or executive order and must be considered in all environmental assessments. All the following elements have been analyzed. However, elements denoted by an "X" are <i>not affected</i> by the Proposed Action or alternatives and will receive no further consideration.	
<input type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Threatened/Endangered Plants; Sensitive Plants
<input checked="" type="checkbox"/> Areas of Critical Environmental Concern	<input checked="" type="checkbox"/> Threatened/Endangered Fish; Sensitive Fish
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Threatened/Endangered Animals; Sensitive Animals
<input type="checkbox"/> Environmental Justice (EO 12898) (minority and low-income populations)	<input type="checkbox"/> Wastes, Hazardous or Solid
<input checked="" type="checkbox"/> Farm Lands (prime or unique)	<input checked="" type="checkbox"/> Water Quality – Surface & Ground
<input checked="" type="checkbox"/> Floodplains	<input type="checkbox"/> Wetlands/Riparian Zones (including uplands)
<input type="checkbox"/> Invasive, Non-native Species	<input checked="" type="checkbox"/> Wilderness
<input type="checkbox"/> Migratory Birds	<input checked="" type="checkbox"/> Wild & Scenic Rivers
<input checked="" type="checkbox"/> Native American Religious Concerns	<input checked="" type="checkbox"/> Tribal Treaty Rights

Other Important Elements of the Human Environment

The elements of the environment listed below are not included on the "critical elements" list, but are important to consider in assessing all impacts of the proposal(s). All the following elements have been analyzed. However, elements denoted by an "X" are *not affected* by the Proposed Action or alternatives and will receive no further consideration.

<input checked="" type="checkbox"/> Paleontological Resources	<input checked="" type="checkbox"/> Fisheries
<input checked="" type="checkbox"/> Indian Trust Resources	<input checked="" type="checkbox"/> Forest Resources
<input type="checkbox"/> Availability of Access/Need to Reserve Access	<input type="checkbox"/> Soils
<input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Wild Horse and Burro Designated Herd Management Areas
<input checked="" type="checkbox"/> Recreation Use, Existing and Potential	<input checked="" type="checkbox"/> Visual Resources
<input type="checkbox"/> Existing and Potential Land Uses	<input type="checkbox"/> Economic & Social Values
<input type="checkbox"/> Vegetation types, communities; vegetative permits and sales; Rangeland resources	<input type="checkbox"/> Mineral Resources

3.2 Existing Conditions

The Proposed Action may affect 15 critical and other important elements of the human environment. The existing conditions of these 15 elements are discussed below.

3.2.1 Air Quality

Under the Clean Air Act (as amended, 1977) and in accordance with the RMP, BLM administered lands, including the area within which the project area resides, are designated as Class II air quality classifications. This classification allows moderate deterioration associated with moderately well controlled industrial and population growth. The project area is not located in or adjacent to any mandatory Class I (most restrictive) federal air quality areas, USFWS Class I air quality units, or American Indian Class I air quality lands.

The air quality of the project area is typical of undeveloped expanses of the Basin and Range Physiographic Province. Although air quality in the project area is generally assumed to be good, winds and storms generate airborne dust and local and regional wild fires produce smoke that can create haze that tends to be localized and short-lived. Dust is generated by pickup trucks and other vehicles traveling on Goose Creek Road, Warm Springs Road, and other dirt access roads in the area. Dust is generated by vehicles traveling to and from rock quarries on Middle Mountain, and from heavy equipment and rock quarrying activities such as removal and stacking of stone.

3.2.2 Cultural Resources

A survey for cultural resources has been completed. There are no known Cultural Resources within the Project Area.

3.2.3 Environmental Justice

The project area is located in the southern portion of Cassia County. Demographically, there are 21,577 residents. The national origin of residents in Cassia County is 84.7 percent White, 0.2 percent Black or African American, 0.8 percent Native American, 0.4 percent Asian. Persons from Latino or Hispanic origin make up 18.7 percent of the total population. The median income for a household in Cassia County is \$32,175. Of the total population, 15.4 percent of individuals were identified as living below the poverty line (Cassia County 2007).

3.2.4 Invasive Non-native Species

Scotch thistle, a non-native invasive noxious weed, was noted at the project area. This is the only noxious weed identified during field survey at the project area. A patch of Scotch Thistle at the southwest portion of the Project Area measuring roughly 1,000 square feet was noted in a disturbed clearing that had been bulldozed and lacked sagebrush and other native vegetation.

3.2.5 Migratory Birds

Habitat at the project area consists of sagebrush, grasses, and low growing shrubs. A seep provides a water source, thereby enhancing the value of habitat for migratory birds. A number of migratory songbirds and raptors could utilize the project area for nesting, foraging, and as a flyover area and resting

point along a migratory route. The rock wren (*Salpinctes obsoletus*) and American goldfinch (*Carduelis tristis*) are migratory birds protected under the Migratory Bird Treaty Act (MBTA) that were noted at the project area.

3.2.6 Threatened, Endangered, and Sensitive Animals

The project area does not contain designated or critical habitat for any threatened or endangered species (USFWS, 2008).

Sagebrush dominated habitat at the project area is consistent with the requirements of three special status birds: Brewer's sparrow, (*Spizella breweri*), sage sparrow (*Amphispiza belli*), and greater sage-grouse (*Centrocercus urophasianus*). Suitable nesting habitat is present for all three of these birds.

During a biological survey, Brewer's sparrow were observed in the project area. Sage sparrow and greater sage-grouse were not observed. There was no obvious sign, including scat, of greater sage-grouse noted in the area about the seep; however, the ground surface in and near the seep has been visibly trampled by cattle. The seep would tend to make the project area attractive to greater sage grouse, because of the availability of water. However, based on the surrounding topography and other characteristics of the area, it does not appear that there is sufficient evidence to suggest habitation by greater sage-grouse. Three greater sage-grouse leks occur in the area further than 1 mile but less than 2 miles to the west of the project area on private lands. The intervening area has been disturbed by quarrying activities.

Three BLM special status birds, loggerhead shrike (*Lanius ludovicianus*), prairie falcon (*Falco mexicanus*), and Ferruginous hawk (*Buteo regalis*), could use the project area as forage, as a flyover area, or as a resting area along a migration route. The project area does not contain suitable nesting habitat for these species.

A seep provides a water source, thereby enhancing the value of habitat for the Brewer's sparrow, Sage sparrow, Greater sage-grouse, Loggerhead shrike, Prairie falcon, and Ferruginous hawk. All of these special status birds are likely to occur at the Project Area.

It is unlikely that other threatened, endangered or sensitive animals would be impacted by the Proposed Action. Supporting documentation is found in the Biological Evaluation in the administrative record.

3.2.7 Wastes, Hazardous or Solid

An open-pit associated with an abutting quarry operation has encroached an estimated 350 feet into the west boundary of the project area. It is estimated that roughly 3 acres of the project area is affected by pre-existing quarrying activities. Hazardous materials in the form of diesel fuel and oil are used in association with track hoes, dump trucks, and vehicles used to extract stone from the earth. No bulk storage of hazardous materials was noted in this area. The remainder of the project area exhibits no indications that hazardous substances are being used or have been used in the past. No stained soils, empty containers, stressed vegetation, or other indicators of spills or releases of hazardous materials were noted during the site inspection.

3.2.8 Wetlands and Riparian Zones (including uplands)

A small seep is present in the bottom of a gully in the south-central portion of the project area, resulting in small puddles and moist soil for about 300 feet down slope before drying up. The seep emerges from beneath a large boulder in the bottom of the gully. Vegetation is most lush around the seep and plant species observed in this area include blue elderberry (*Sambucus caerulea*), red osier dogwood (*Cornus sericea*), and wild rose (*Rosa sp.*). These species are not found at other location in the project area. Evidence of cattle use is present in and around the seep. Cattle grazing is evidenced by trampled vegetation and soil, exposed soil, and some areas with little vegetation growth along the edges of the seep. The gully where seep is located is an otherwise ephemeral drainage that only contains water during times of high runoff and rainfall.

3.2.9 Availability of Access/Need to Reserve Access

Access to the project area would be achieved by traveling in an easterly direction on Warm Springs Way, a county maintained two-lane dirt road, from an intersection on Goose Creek Road located roughly 3.5 miles south of Oakley. After roughly 1 mile of easterly travel on flat terrain, a veer in the road leads southeasterly onto a one-lane private dirt road that climbs roughly 650 feet in elevation, while winding and traversing across the base of Middle Mountain a distance of roughly 3/4-mile before arriving at the project area.

The project area is located on public lands administered by the BLM, which abut private land. Sawtooth Stone Supply has entered into an access easement with the underlying property owner. The access easement agreement allows a road easement for the transport of stone, quarry equipment, and other related activity to and from the project area.

3.2.10 Wildlife

Managed wildlife species were not observed at the project area. The project area does contain foraging and winter habitat, and marginal fawning grounds for both mule deer (*Odocoileus hemionus*) and pronghorn antelope (*Antilocapra Americana*). Both of these species may pass through the project area and browse while moving between the various mountain ranges in the area. Because pronghorn antelope tend to prefer flatter topography, the project area is likely more conducive to mule deer use.

3.2.11 Existing and Potential Land Use

Present human impacts to the project area are limited to three single-lane dirt roads, scattered rock piles, and rock quarrying activities that have encroached onto the western portion of the project area from an abutting rock quarrying operation. Adjoining and neighboring properties are already being used as rock quarries, and the general area is known for similar quarrying activities. Human disturbance presently affects about 3 acres or about 5 percent of the 60-acre project area. The remainder of the project area contains naturally occurring features and topography. The project area is presently used for cattle grazing.

3.2.12 Vegetation Types, Communities, Vegetative Permits and Sales; Rangeland Resources

The predominant vegetation consists of naturally occurring grasses, big sage (*Artemisia tridentata*), and rabbit brush (*Chrysothamnus nauseosus*). Sagebrush in the area is generally no taller than 1-1/2 feet.

Other common plants are phlox (*Phlox sp.*), Plains prickly pear cactus (*Opuntia polyacantha*), western salsify (*Tragopogon dubius*), pincushion cactus (*Pediocactus simpsonii*), and Utah serviceberry (*Amelanchier utahensis*). Vegetation is most lush around a seep, which is situated in the south-central portion of the project area.

None of the sensitive plant species identified by the BLM as potentially present in the surrounding area are known to occur in the project area.

3.2.13 Soils

Soils within the 60-acre project area are comprised of 24 acres of Mackey-Rock Outcrop, 29 acres of Vipont Very Stony Loam, and 7 Acres Winu Stony Silt. Quarrying operations would occur on the Mackey-Rock Outcrop and Vipoint Very Stony Loam soil types. Information on these soil types was derived from the 1981 Soil Survey of Cassia County (USDA, Soil Conservation Service et al.).

Mackey-Rock Outcrop:

The Mackey soil is moderately deep and well drained and formed in alluvium and colluvium derived from intermediate and basic igneous rocks. In a typical profile the surface layer is light brownish gray very stony sandy loam 4 inches thick. The subsoil is light yellowish brown very stony clay loam and very stony loam 8 inches thick. The underlying layer is pale brown very stony sandy loam and very stony loamy sand to a depth of 32 inches. Permeability is moderately rapid. Surface runoff is rapid, and the hazard of erosion is high. The hazard of soil blowing is slight.

Vipont Very Stony Loam

This is a moderately deep, well drained soil on South-facing mountainsides. This soil formed in material recently decomposed from mixed parent rock. Permeability is moderate. Surface runoff is rapid, and the hazard of erosion is high. The hazard of soil blowing is slight.

3.2.14 Economic and Social Values

The BLM administers the majority of land in the project area on Middle Mountain. BLM has administered lands for a variety of uses including amenity, commodity, non-commodity, and recreation. Multiple use management in the project area has included outdoor recreation, range management, mineral resource development, and wildlife and watershed protection. The project area is roughly 5 miles from the town of Oakley.

According to the Idaho Department of Labor, Cassia County Workforce Trends (2008), Cassia County has experienced limited growth. Most jobs in Cassia County related to agriculture; trade, utilities, and transportation; educational and health services; and government. Mining accounts for 179 jobs out of a 2006 average employment of 9,193 (IDOL 2008).

3.2.15 Mineral Resources

The Middle Mountain, area is known for production of micaceous quartzite, near several other active micaceous stone quarries. The project area is conducive to quarrying operations due to the fact that stone is located near the surface and the project area is easily accessed via Goose Creek Road, near the town of Oakley, Idaho.

4.0 ENVIRONMENTAL CONSEQUENCES

This section describes the expected environmental impacts of the Proposed Action. In addition, a no action alternative (No Action Alternative) is considered. The potential impacts of these actions are evaluated below with respect to the 15 identified affected elements of the human environment.

4.1 Air Quality

Proposed Action: The Proposed Action would result in an increase in vehicular traffic along Goose Creek Road, a dirt road between the project area and the town of Oakley. In addition, the Proposed Action requires that a roughly 1-3/4-mile segment of existing dirt roads on Warm Springs Road and another private dirt road be traveled to access the project area. On average, five trips per day (10 one way trips) along existing dirt roads would occur as a result of quarrying operations.

Quarrying activities that would produce dust involve scraping the surface of the earth to remove top soil in order to gain access to subsurface stone. Other quarrying activities would involve the use of heavy equipment such as an excavator, a loader with forklift, one or more flat bed 10-wheel trucks for transportation of palletized stone, pick-up trucks for transportation of quarry workers and supplies, and occasionally a Caterpillar D-8 or similar dozer. An additional amount of fugitive dust would be generated by stone splitting and stacking.

Quarrying operations would cause a small deterioration in air quality from fugitive dust. In Class II areas, some deterioration of air quality is acceptable. Because the level of air quality deterioration is expected to be small, the proposed mining operations would be consistent with air quality standards. The mining proponent would comply with Idaho Department of Environmental Quality regulations for fugitive dust.

The cumulative effect upon air quality would be an increase in the amount of fugitive dust in and surrounding the project area. This additional amount of fugitive dust from vehicle use and quarrying activities would combine with existing dust from neighboring quarries and other vehicles traveling on dirt roads in the area of Middle Mountain. Dust abatement occurs occasionally when Magnesium Chloride is sprayed on Goose Creek Road.

No Action: Existing sources of fugitive dust near the project area would continue. Dust control measures such as occasional spraying of magnesium chloride on Goose Creek Road would continue. Existing rock quarries and mining activities would continue to generate fugitive dust. In addition, vehicular traffic on Goose Creek Road and other dirt roads would continue to generate fugitive dust. Implementation of the No Action Alternative would not result in fugitive dust because the rock quarry operation would not be approved. This alternative would be consistent with air quality standards.

4.2 Cultural Resources

Proposed Action: A Class III intensive pedestrian survey of the Area of Potential Effect (APE) was conducted by a permitted archaeologist in accordance with the State Protocol Agreement between BLM and the State Historic Preservation Office. No historic or cultural properties were identified in the Cultural Resource Inventory Report (ID220-08-03; see also Appendix B); thus, there will be no effect to known historic or cultural properties eligible or potentially eligible for listing on the National Register of Historic Places (NRHP, Criteria A-D; see also 36 CFR 60.4), as a result of this undertaking. Should there be any future or inadvertent historic or cultural property discoveries made during project implementation;

there will be an immediate cessation of project activities and the Burley Field Manager and Archaeologist will be contacted for further investigation (see also 36 CFR 800.11 and SPA). In the event that American Indian human remains, unassociated funerary objects, or grave goods are encountered, work in the immediate vicinity of the discovery will cease, and BLM shall comply with applicable State laws and/or the Native American Graves Protection and Repatriation Act (NAGPRA) as outlined in 43 CFR 10. In consultation with the SHPO, BLM shall select the appropriate mitigation option before quarry operations resume.

There are no anticipated cumulative impacts to cultural resources because there are no known cultural resources in the APE associated with the proposed quarry operation.

No Action: The No Action Alternative would have no effect to historic or cultural properties because the proposed stone quarry operation would not be approved and there are no known cultural resources in the project area.

4.3 Environmental Justice

Proposed Action: The Proposed Action would employ workers to operate heavy equipment and to stack, split, and palletize Oakley stone. Workers would most likely be drawn from the local and regional population. Workers would be housed on site; the proposed action would not result in temporary or permanent displacement of local residents. Quarrying operations, including transportation of Oakley Stone, would not have any disproportionate effect on minority or low-income populations. The Proposed Action would provide a few, new jobs to the local economy.

There would be no cumulative impacts with respect to effects on minority or low income populations because the Proposed Action is not expected to cause disproportionate effects to these groups.

No Action: The No Action Alternative would not create any new jobs or employ workers from the local or regional population. The No Action is not expected to cause any disproportionate impacts to minority or low-income populations.

4.4 Invasive Non-Native Species

Proposed Action: The proposed action would remove vegetation and disturb soil, creating conditions conducive to the introduction and spread of non-native, invasive weeds. The quarry operations would disturb 10.6 acres of disturbed soils. To reduce the risk of introduction and spread of noxious weeds, the area will be monitored for non-native, invasive weeds on the State Noxious Weed List. If any new infestations are discovered, these infestations would be treated with herbicides or as otherwise suggested by the State Department of Agriculture.

The project area currently contains a patch of Scotch thistle measuring roughly 1,000 square feet. This patch of Scotch thistle would continue to be treated with herbicides or other methods to reduce the likelihood that it will spread and infest additional areas.

The Proposed Action would also construct an access road to the project area. Roads are known to be vectors for spread of non-native, invasive species. Use of this access road would be limited based on the access agreement with the private landowner. Limited use of the access road would lessen the likelihood of new infestations of non-native, invasive weeds.

Non-native, invasive weeds would be treated a minimum of once per year or as often as necessary to control them. For Scotch thistle, herbicides would be applied in the summer months between the rosette and pre-bud stages. Other noxious weeds, if found, would also be treated with herbicides. Only herbicides approved for use on public lands would be used in a manner consistent with the standard operating procedures found in Appendix B of the September 29, 2007, Record of Decision (ROD) related to “Vegetation Treatments Using Herbicides on BLM Lands in the 17 Western States.”

Cumulatively, the Proposed Action could result in additional infestations of noxious weeds in the Middle Mountain area by creating access road and other disturbed areas where native vegetation is removed, thereby providing an opportunity for invasion of noxious weeds into disturbed areas. Seeds from these noxious weeds could be spread to neighboring areas by vectors such as wind and birds. Weed seeds from other infestations in the area could be introduced to the project area as well. Use of herbicides to control weeds in the project area may reduce the cumulative impact of noxious weeds by inhibiting their spread into the surrounding area.

No Action: The project area would not be disturbed by mining operations. Existing areas of disturbed soils would continue to be susceptible to invasion by noxious weeds. The existing infestation of Scotch thistle would continue to occasionally be sprayed with herbicides. Implementation of the No Action Alternative would not contribute to the introduction or spread of noxious weeds into the surrounding area because disturbed land areas would not be created.

4.5 Migratory Birds

Proposed Action: A biologically focused survey of the project area revealed that suitable nesting habitat is present for several birds protected under the MTBA. The rock wren and American goldfinch are non-special status migratory birds, noted at the project area. It is likely that other migratory birds including raptors visit the project area. Removal of sagebrush and other vegetation during the breeding season could result in failed reproductive attempts for migratory birds that use the project area for nesting. In order to reduce the potential impacts to migratory birds that nest in the project area, a biological clearance survey would be completed prior to quarry operations that remove sagebrush or existing rock piles during the breeding season (March 1 - June 30). If surveys during the breeding season reveal nesting migratory birds, disturbance to nesting areas would be postponed until after June 30. If surveys do not reveal nesting migratory birds, the operations would be allowed to proceed. Biological clearance surveys are not needed between July 1 and February 28.

Noise from mining operations associated with the use of heavy equipment is expected to inhibit migratory bird use (nesting and foraging) of the area in close proximity to the operations.

Because of the availability of water, migratory birds are expected to continue using the southern portion of the area where the seep is located. Roughly 50 acres of the project area would continue to provide nesting and foraging habitat; however, areas in close proximity to the quarry operation may not be used because of noise and the presence of humans.

Areas disturbed by quarry operations would be reclaimed at the end of the quarry life (in 40 to 50 years). Disturbed areas would be reseeded once quarry operations are completed. When reclamation activities occur, an appropriate seed mix will be selected. At this time, it is anticipated that the seed mix will contain a variety of grass, forb, and shrub seeds and is likely to contain non-native species such as crested wheatgrass. It is expected that sagebrush habitat would be replaced by grasslands.

Cumulatively, the quarrying of Oakley Stone in the project area, along with other quarrying operations in the Middle Mountain area could inhibit migratory bird nesting and foraging activities. Existing quarrying operations have resulted in removal of native vegetation, including sagebrush, from roughly 140 acres. The proposed quarry operation would remove an additional 10.6 acres of native vegetation. A separate proposed quarry operation on Middle Mountain would remove an estimated 10 acres of native vegetation. Noise and vegetation removal associated with these quarrying operations have reduced the suitability of nesting and foraging habitat for migratory birds in the vicinity of quarry operations. Based upon a review of aerial photography, it is estimated that roughly 95 percent of Middle Mountain is undisturbed by quarrying, access roads, and other human disturbances. The Middle Mountain area would continue to provide habitat for migratory birds.

No Action: The existing native vegetation found in the project area would not be disturbed and would continue to provide suitable nesting and foraging habitat for migratory birds. There would be no disturbance as a result of the proposed quarry operations. Habitat would continue to be affected by other quarry operations on Middle Mountain. The No Action Alternative would not impact migratory birds because the Project Area, associated vegetation, forage, and potential nest sites would not be disturbed.

4.6 Threatened, Endangered and Sensitive Animals

Species lists were obtained from the BLM, United States Fish and Wildlife Service (USFWS), and State of Idaho Department of Fish and Game (IDFG) that identified federally protected, state protected, and BLM Sensitive wildlife that are potentially present at the project area. A biologically focused survey of the project area was then conducted and impacts to these species from the Proposed Action were evaluated. The Biological Evaluation (BE), wherein an analysis of special status species was conducted, is included in the administrative record.

Proposed Action: The Brewer's sparrow, sage sparrow, and greater sage-grouse are BLM sensitive birds that utilize sagebrush for nesting habitat. The sagebrush-dominated habitat at the project area is considered suitable for nesting for these species. In addition, a seep at the project area provides a water source, thereby enhancing the value of habitat for these species. Brewer's sparrows were observed at the project area. The sage sparrow and greater sage-grouse were not observed, but could utilize the project area.

The stone quarry operation, as proposed, would not involve disturbance within roughly 700 feet of the seep. Furthermore, Sawtooth has agreed to prohibit any disturbance within 100 feet of the seep. The 100-foot buffer around the seep would serve as a measure to reduce the potential to disturb greater sage-grouse, sage sparrow, and Brewer's sparrow that may be using this water source.

The proposed quarry operation would remove 10.6 acres of vegetation, including sagebrush. Removing and/or disturbing sagebrush during the breeding season could result in failed reproductive attempts for these three special status birds. As a result, biological clearance surveys during the breeding season would be used to reduce the likelihood of disturbing these special status species (Brewer's sparrow, sage sparrow, and greater sage-grouse) as well as any other migratory birds that could utilize the project area as nesting habitat. Biological clearance surveys would be completed prior to quarry operations involving removing and/or disturbing sagebrush during the breeding season (March 1 – June 30). In the event that the biological clearance survey reveals nesting Brewer's sparrow, sage sparrow, or greater sage-grouse, disturbance to the sagebrush should be postponed until the non-breeding season. A biological clearance survey is not required for operations that occur outside the breeding season (July 1 – February 28).

The loggerhead shrike, prairie falcon, and Ferruginous hawk are BLM sensitive species that could use the project area for foraging. However, habitat characteristics at the project area do not match the typical nesting requirements for these species, and as such, nesting at the project area or immediate surroundings by these species is unlikely. Usage of the project area by these species is likely limited to an occasional flyover, foraging site, or resting point along a migration route. The quarry operation would result in removal of roughly 10.6 acres of foraging habitat for these species.

With the exception of the species identified above, the Proposed Action would not have an effect upon federally threatened and endangered species, or other special status species that are potentially present in the surrounding area. Supporting documentation is found in the Biological Evaluation in the administrative record.

Areas disturbed by quarry operations would be reclaimed at the end of the quarry life (in 40 to 50 years). Disturbed areas would be reseeded once quarry operations are completed. When reclamation activities occur, an appropriate seed mix will be selected. At this time, it is anticipated that the seed mix will contain a variety of grass, forb, and shrub seeds and is likely to contain non-native species such as crested wheatgrass. It is expected that sagebrush habitat would be replaced by grasslands.

Cumulative impacts to sensitive species involve the removal of roughly 10 acres of habitat on Middle Mountain. Based upon a review of aerial photography, it is estimated that roughly 140 acres of native vegetation has been removed and displaced by quarrying activities on the western base flank of Middle Mountain. A separate proposed quarry operation on Middle Mountain would remove an estimated 10 acres of native vegetation. The proposed action, along with existing and proposed quarrying operations, would result in removal of an estimated 160 acres of sagebrush habitat. Based upon a review of aerial photography, it is estimated that more than 95 percent of Middle Mountain is undisturbed by quarrying, access roads, and other human disturbances. The Middle Mountain area would continue to provide habitat for these sensitive species.

No Action: The existing native vegetation found in the project area would not be disturbed and would continue to provide nesting and foraging habitat for Brewer's sparrow, sage sparrow, and greater sage-grouse. There would be no disturbance as a result of the proposed quarry operations during the breeding season or at other times of the year. Habitat would continue to be affected by other quarry operations on Middle Mountain.

4.7 Wastes, Hazardous or Solid

Proposed Action: Small volumes of petroleum-based products such as oil and transmission fluids would be brought to the project area in 5-gallon or smaller containers. A portable 500-gallon aboveground storage tank (AST) containing diesel would be used at the project area to fuel vehicles and equipment. The AST would be fueled in Oakley and brought to the project area on a truck. It would then be placed in a secondary containment structure capable of storing 110 percent of the volume of the full tank, as required by the State of Idaho Department of Environmental Quality (DEQ). The DEQ requires spills of petroleum-based products equaling or exceeding 25 gallons to be reported to the DEQ within 24 hours of the release. In addition, any volume of petroleum-based product that enters surface water must be reported to the DEQ within 24 hours of the release. The secondary containment structure is expected to contain any spill and prevent any release of diesel fuel of reportable quantities. In order to prevent impacts to surface waters from hazardous materials, the AST would be situated no closer than 700 feet from the seep. In the event of a release from the AST, the intervening buffering distance would serve a

measure that would minimize the potential for impacts to the seep. Because of secondary containment, there would be a low likelihood of an impact from hazardous materials.

Mobile homes would be brought to a stone storage/workers camp area for quarry workers. Initially, two to three mobile homes would be needed. As the number of workers increases, up to 12 mobile homes may be necessary to support operations. Household wastes from mobile homes would be collected routinely and transported to the Oakley waste transfer station or incinerated at the project area consistent with county standards. Self-contained sanitation units would be brought to the stone storage/workers camp area and serviced on a regular basis by a commercial sanitation company. Grey water would be piped via a series of aboveground pipes to a hole in the ground where it would dissipate into the soil at the Project Area. If the precautions described above are followed, there appears to be a low likelihood that the Proposed Action would result in impacts from hazardous or solid wastes. Any impacts from hazardous or solid wastes would be limited to the area where quarrying operations occur.

At the end of the life of the quarry all hazardous and solid wastes would be removed from the project, including the AST, any other petroleum-based products, portable toilets, mobile homes, vehicles, heavy equipment, and solid waste.

Cumulative impacts related to hazardous and solid wastes is unlikely. Even though all of the quarrying operations likely include the use of hazardous materials, such as diesel, gasoline, and oil, they all should comply with the State DEQ and county requirements for management of hazardous and solid wastes.

No Action: The No Action Alternative would not result in impacts to the human environment from hazardous or solid wastes, because the stone quarry would not be approved.

4.8 Wetlands and Riparian Zones (Including Uplands)

Proposed Action: A small seep emerges in the bottom of a gully in the south-central portion of the project area, resulting in small puddles and moist soil for about 300 feet down slope before drying up. The seep emerges from beneath a large boulder in the bottom of the gully. The gully where the seep is located is an otherwise ephemeral drainage that only contains water during times of high runoff and rainfall events.

The stone quarry operation, as proposed, would not involve disturbance within roughly 700 feet of the seep. A 100-foot buffer around the seep would be established that would prevent impacts to the seep. No impacts to wetlands, riparian zones, and adjoining uplands are anticipated as a result of the proposed action. The existing vegetation surrounding the seep would not be removed or altered as a result of quarry operations.

Since it is not anticipated that direct impacts to wetlands, riparian zones, and adjoining uplands would occur as a result of the Proposed Action, cumulative impacts to these resources are also not anticipated.

No Action: The seep and surrounding vegetation in the project area would not be affected by quarrying operations. There would be no impacts to wetlands, riparian zones, and adjoining upland areas, because the quarry would not be approved.

4.9 Availability of Access / Need to Reserve Access

Proposed Action: The amount of access to public lands in the vicinity of Middle Mountain would not likely be altered. Even though Sawtooth would construct a new access road on public lands, use would be limited because the existing road crosses private land. Members of the public will not be permitted on this private road without permission from the private landowner.

Sawtooth has obtained the needed agreements to access the project area. Sawtooth would construct a new access road starting at the west boundary of BLM lands in Section 34. Initially the proposed access road would be 1,500 feet long and would proceed through the proposed quarry and plant growth materials storage, exit these areas, reenter the plant growth materials storage at an uphill position then terminate within the stone storage/worker's camp. During operations the roadway would be shifted as needed to maximize access to stone in the quarry, which can be quarried. After the quarry and stone storage/worker's camp have been developed, the remainder of the proposed road outside of these areas would be approximately 920 feet. The approximately 920 feet of road would cover about 0.3 acres (total of useable road plus cut/fill slope). The remainder of the road is included within the acreage on the quarry and stone storage/worker's camp. When quarry operations are complete, the access road will be removed and reclaimed pursuant to the Mining and Reclamation Plan.

All access roads would be improved and maintained in accordance with BLM standards. Drainage systems would be installed as necessary to ensure adequate road drainage (such as drainage dips, ditches, road crossings, and culverts) in accordance with the established standards.

Cumulatively, the new access road would not add to public access in the Middle Mountain area even though it will add to the overall amount of roads on Middle Mountain.

No Action: The amount of access to public lands in the vicinity of Middle Mountain would not be altered. The No Action Alternative would not result in impacts in terms of availability of access and need to reserve access.

4.10 Wildlife

Proposed Action: Managed wildlife species were not observed at the project area; however, the project area offers quality foraging and winter habitat and marginal fawning grounds for both mule deer and pronghorn antelope. Both of these species may pass through the project area and browse while moving between the various mountain ranges in the area. The noise, equipment, and human presence associated with quarry operations and road use could displace both mule deer and pronghorn antelope and these species may avoid the quarry area. Clearing vegetation associated with quarry operations would remove roughly 10 acres of potential forage for these species. Quarry operations would shut down in November each year and would not resume until the following March. Because quarry operations are shut down during the winter months, quarry operations are not expected to affect winter use of the area.

Cumulatively, habitat on the western flank of Middle Mountain is becoming fragmented due to the number of quarry operations. Adding this quarry along with another proposed quarrying operation may cause mule deer and pronghorn antelope to alter their migratory behavior patterns. Aerial photography indicates that more than 95 percent of Middle Mountain is still undeveloped.

No Action: The existing quarry operations would continue to operate, even though the proposed Sawtooth quarrying operation would not be approved. The existing levels of disturbance from quarrying operations and road use in the Middle Mountain area would continue to affect mule deer and pronghorn antelope use of the area. These species are expected to continue to avoid these areas.

4.11 Existing and Potential Land Uses

Proposed Action: The Proposed Action would not change the existing levels of livestock use in the project area. Existing human disturbance in the form of quarrying activities at the west edge of the project area presently affects about 3 acres or about 5 percent of the project area. The Proposed Action would increase the level of human disturbance and would convert about 10.6 acres of vegetation into a stone quarry operation. Removing 10.6 acres of vegetation would cause a slight reduction in the amount of forage produced; however, the change would be so slight that no modification would be made to the grazing permit. Public lands would continue to be available to existing and potential land uses.

Cumulatively, roughly 140 acres of native vegetation on the western flank of Middle Mountain has been removed and displaced by quarrying activities. The proposed action would result in removing roughly 10.6 acres of vegetation. Considering the current quarrying operations, the Sawtooth quarry operation, and another proposed quarry operation on Middle Mountain, about 160 acres of land would no longer produce forage until these lands have been reclaimed when quarrying operations are complete. Based on a review of aerial photography, approximately 95 percent of the land area on Middle Mountain is still undeveloped and would continue to be available to other lands uses, including livestock grazing.

No Action: Livestock grazing in the project area would continue and the existing levels of livestock use would not change. Public lands would continue to be available to existing and potential land uses. Quarrying operations in the 60-acre project area would not be approved; however, existing quarrying operations on Middle Mountain would continue.

4.12 Vegetation Types, Communities; Vegetative Permits and Sales; Rangeland Resources

Proposed Action: This mining project would remove roughly 10 acres of sagebrush-dominated vegetation within the 60-acre Project Area. It is estimated that vegetation removal would occur over a 5-year period. Quarry operations would occur for an estimated 40-50 years. When quarrying operations are complete, the disturbed area would be reclaimed by re-spreading the topsoil that has been stockpiled and seeding the area with an approved seed mixture as described in the Mining and Reclamation Plan. At this time, it is anticipated that the seed mix will contain a variety of grass, forb, and shrub seeds and is likely to contain non-native species such as crested wheatgrass. It is expected that sagebrush habitat would be replaced by grasslands.

Cumulatively, roughly 140 acres of native vegetation on the western flank of Middle Mountain has been removed and displaced by quarrying activities. The proposed action would result in removal of roughly 10.6 acres of sagebrush dominated vegetation. Another proposed quarrying operation would remove an estimated 10 acres of sagebrush dominated vegetation. In total, 160 acres of vegetation on Middle Mountain would be removed and displaced by quarrying activities. Based on an analysis using aerial photograph, more than 95 percent of the Middle Mountain area is still undeveloped.

No Action: The existing vegetation would continue to be dominated by sagebrush.

4.13 Soils

Proposed Action: The proposed quarrying operations would result in compacting and displacing soils. Topsoil would be scraped off and stockpiled for use in future reclamation efforts. Topsoil would be stockpiled in an area about 2 acres in size. Topsoil would be removed from roughly 8.6 acres. Where topsoil is removed, the area would become an active quarrying operation. Soils would be compacted in roughly 0.3 acres where a road would be constructed. In the stone storage/workers camp, roughly 1.7 acres would have soils compacted as a result of heavy equipment use and installation of mobile homes. The active quarry would encompass roughly 6.6 acres. All soil would be removed from this area in order to expose and mine the subsurface stone. In total, soils would be removed or compacted on roughly 10.6 acres. There may be a slight loss of soils due to erosion. To reduce the potential for erosion from runoff, drainage systems would be installed as necessary to ensure adequate road drainage (such as drainage dips, water bars, ditches, road crossings and culverts) in accordance with the established standards. The soil types found in the project area are not susceptible to wind erosion; therefore, soil loss from wind erosion is not expected.

Cumulatively, this project combined with existing and proposed quarrying operations in the Middle Mountain area are expected to result in roughly 160 acres of soil compaction and displacement.

No Action: The No Action Alternative would not result in removal or compaction of soils because the stone quarry would not be approved. Existing levels of compaction and displacement as a result of past quarrying and exploration activities in the project area would continue to exist.

4.14 Economic and Social Values

Proposed Action: The quarry operation is expected to employ workers from local communities including residents of the town of Oakley. Mining is a small portion of employment in Cassia County. This quarrying operation would add a small number of jobs in the County. Wages paid to employees would help local businesses because wages would be spent on items such as food, gasoline, and other goods. Sawtooth is a locally run business operating in both Oakley and Burley.

Cumulatively, this quarry operation would add a small level of employment to Cassia County. Employment income in Cassia County would continue to be dominated by the agricultural, trade/utilities/transportation, education/health, and government sectors (IDOL 2008).

No Action: The No Action Alternative would not contribute to the economic and social values of Cassia County. No new jobs would be created.

4.15 Mineral Resources

Proposed Action: This alternative would result in removal of Oakley Stone from an open pit quarry. For the first few years of operation, an estimated 3,000 tons per year would be removed. After about 5-10 years, an estimated 10,000 tons of stone would be removed per year. The annual removal rate would depend on the demand for Oakley Stone. Once these mineral resources are removed, they cannot be replaced.

Cumulatively, this quarry along with the other existing and proposed quarries on Middle Mountain would remove Oakley Stone.

No Action: The Oakley Stone deposits in the project area would not be removed and would be retained on site.

5.0 LIST OF PREPARERS

Mark J. Bellini, Senior Biologist/Project Manager, EarthTouch, Inc.
Scott Billat, Archaeologist, EarthTouch, Inc.
Lorna Billat, Archaeologist, EarthTouch, Inc.
Brett Cox, Senior Scientist, EarthTouch, Inc.
Heinz A. Lumpp, Senior Advisor, EarthTouch Inc.

Bibliography

BLM. 1985. Cassia Resource Management Plan. On file at the Burley District Office, Burley, ID.

BLM. 2007. Vegetation Treatments Using Herbicides on BLM Lands in the 17 Western States Record of Decision. Appendix B. http://www.blm.gov/wo/st/en/prog/more/veg_eis.html.

Cassia County Idaho Recorder's Office – Access and Easement Information (September 11, 2007).

Cassia County, Idaho. 2007. Cassia County Information, People Quickfacts. <http://www.cassiacyounty.org/general/information.htm>, accessed May 19, 2008.

IDFG (State of Idaho Department of Fish and Game) – State of Idaho Sensitive Species Information by County, http://fishandgame.idaho.gov/cms/tech/cdc/t&e Vertebrates_by_county.cfm.

IDEQ (Idaho Department of Environmental Quality), Aboveground Storage Tank operating guidelines and release reporting requirements (Telephone Interview with Eric Traynor-IDEQ).

Idaho Department of Labor (DOL). 2008. Cassia County Workforce Trends. <http://labor.idaho.gov/lmi/pubs/CassiaProfile.pdf>, accessed May 22, 2008.

Idaho SHPO (State Historic Preservation Officer). 2007. Cultural Resources Consultation. Determination of Significance and Effect (November 22, 2007).

United States Department of Agriculture (USDA), Soil Conservation Service; United States Department of Interior, Bureau of Land Management; and University of Idaho, Agricultural Experiment Station. 1981. Soil Survey of Cassia County, Idaho, Western Part.

United States Fish and Wildlife Service (USFWS), Snake River Fish and Wildlife Office. 2007. Species Information by County: Cassia. <http://www.fws.gov/idaho/agencies/Countybycounty.htm>. Accessed May 19, 2008.

Welsh, S.L., D.N. Atwood, S. Goodrich, , and L.C. Higgins. 1993. A Utah Flora, Second Edition, Revised. Print Services, Brigham Young University, Provo, UT.